

Remarks

1. Summary of Office Action

In the Office Action mailed January 17, 2006, the Examiner rejected claims 1, 16, 30, and 31 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter Applicants regard as the invention, the Examiner rejected claims 6-13 and 21-29 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,502,132 (Kumano et al.), and the Examiner rejected claims 1, 3, 5, 14-16, and 30-33 under 35 U.S.C. § 103(a) as being unpatentable over Kumano further in view of U.S. Patent No. 6,317,701 (Pyotsia et al.). Applicants note that in addition to claims 1, 3, 5, 14-16, and 30-33 listed at the start of the section that discusses the 35 U.S.C. § 103(a) rejections (Office Action, page 5), the Examiner subsequently expands the list to include all the rest of the pending claims as being rejected under 35 U.S.C. § 103(a) as well (see claims listed in Office Action, page 7). Applicants assume that the Examiner's intent was to reject all pending claims under 35 U.S.C. § 103(a).

2. Claimed Invention

Presently pending are claims 1, 3, 5-16, and 18-33, of which claim 1, 6, 15-16, 21, and 30-33 are independent, and the remainder are dependent. The claimed invention is directed to a method for monitoring a network of connected devices, wherein each connected device may be one of at least two types, edge device and core device; and wherein the total number of connected devices of any type in the network may change from time to time. The invention is particularly directed at a method whereby the procedure used to monitor devices may be (1) different for the different device types, and (2) changed according to the number of connected devices. Further, the different monitoring procedures include at least both using different time intervals and using different protocols. Each of the claims requires, in one way or another,

various combinations of the elements that capture these particular, distinguishing aspects of the claimed invention.

3. Response to Rejections under 35 U.S.C. 112, Second Paragraph

As noted, the Examiner rejected claims 1, 16, 30, and 31 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter Applicants regard as the invention. Applicants have amended all of these claims so as to make clear that the different time intervals recited in each of claims 1, 16, 30, and 31 are determined in accordance with the device type. That is, each device type has associated with it a distinct time interval.

4. Response to Rejections under 35 U.S.C. §102(e)

As noted, the Examiner rejected claims 6-13 and 21-29 under 35 U.S.C. 102(e) as being anticipated by Kumano. Under M.P.E.P. § 2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Applicants respectfully submit that the rejection of claims 6-13 and 21-29 as being anticipated by Kumano is improper, because Kumano does not teach all the elements of any of these claims.

With regard to claim 6, the Examiner cited column 15, lines 44-67 and column 16, lines 1-5 in Kumano as reading the recitation in the claim of “the steps of determining the number of devices in the network to be monitored, and *changing the monitoring procedure in accordance with the determined number.*” The Examiner stated that the cited text in Kumano discloses “a counter of the number of devices which can change the summary status which then changes the control command.” Applicants respectfully submit that text in Kumano cited by Examiner does *not* disclose “a counter of the number of devices which can change the summary status which

then changes the control command,” and further, even if it did, this still fails to teach or describe all of the elements of claim 6.

With regard to the cited text in Kumano, Applicants respectfully point out that the specific columns and lines refer, over the course of three paragraphs, to two distinct operational aspects disclosed in the patent. Specifically, the paragraph in column 15, lines 44-59 discloses a procedure for displaying summary statuses, as is made clear in the immediately preceding paragraph (column 15, lines 41-43) that introduces the procedure. Kumano discloses that since the display procedure is repeated as many times as there are devices, a counter, which is reset prior to the first repetition, is used to make the number of repetitions equal to the number of devices (column 15, lines 44-49). The remainder of the paragraph discloses how the summary statuses are displayed during each repetition. In particular, at each repetition, the summary status for a particular device is read from status-control memory 5, the display text describing the summary status is read from status-display memory 6, and the data are used to update a display. Both status-control memory 5 and status-display memory 6 are elements of the monitoring device, as is clear from Figure 2. Thus, the data to be displayed during each repetition of the procedure are already in memory elements of the monitoring device when the display procedure begins, and *no monitoring or interrogating procedure directed to network devices is occurring* within the repetitive procedure as disclosed.

The next two paragraphs (spanning column 15, lines 60-67 through column, 16 lines 1-5) introduce and disclose the operations of the monitoring device associated with issuing a control command. Kumano discloses actions taken by the monitored devices in response to a control command from the monitoring device. In particular, Kumano discloses actions involving the control unit 12 and the status-control memory 15. These elements are both part of the monitored

device, as is clear from Figure 3. Neither the actions of the monitored device, nor those of the monitoring device, are disclosed as being associated with, or effected by, any counter of the number of devices in the network.

Applicants therefore point out that the two operations disclosed in the text of Kumano cited by the Examiner are distinct and unconnected. The counter and summary status in the first-disclosed operation is unrelated to the issuing of a control command in the second-disclosed operation. In fact, the counter does not even change the summary status, as asserted by the Examiner, but rather is used to determine the number of repetitions of a status-display procedure. Applicants respectfully submit that the causal relationship of counter, summary status, and control command put forth by the Examiner in rejecting claim 6 has no support in the text of Kumano cited by the Examiner. Further, even *if* Kumano did disclose “a counter of the number of devices which can change the summary status which then changes the control command,” this still fundamentally fails to teach or describe “changing the monitoring procedure *in accordance with the determined number*” of devices as required by claim 6.

Applicants further submit that nowhere in Kumano is there disclosed “changing a monitoring procedure in accordance with the number” of devices in the network to be monitored. At most, Kumano discloses the monitoring of devices in a network that, in some aspects, takes account of the number of devices in the network. But none of the aspects of monitoring described in Kumano disclose using the number of devices to be monitored as a determinant of the monitoring procedure, as required by claim 6. Applicants respectfully submit that claim 6 clearly distinguishes over Kumano, and that claim 6 is therefore allowable.

With regard to claims 7-13 and 29, Applicants point out that all of these claims depend from claim 6, and thereby incorporate all of the elements of claim 6. Therefore, Applicants

respectfully submit that for at least the reason that each of claims 7-13 and 29 depend from an allowable claim, these claims are allowable as well.

With regard to claim 21, the Examiner did not provide any specific basis for rejection beyond simply asserting anticipation by Kumano. In as much as claim 21 includes “means for determining the number of devices in the network to be monitored, and means for changing the monitoring procedure in accordance with the determined number,” Applicants presume that the basis of rejection is at least the same as that which the Examiner cited with respect to claim 6. As such, Applicants submit that the discussion above regarding claim 6 applies to claim 21 as well, and for the same reasons. Thus Kumano fails to teach or describe every element of claim 21, and Applicants respectfully submit that claim 21 is therefore allowable.

With regard to claims 22-28, Applicants point out that all of these claims depend from claim 21, and thereby incorporate all of the elements of claim 21. Therefore, Applicants respectfully submit that for at least the reason that each of claims 22-28 depend from an allowable claim, these claims are allowable as well.

5. Response to Rejections under 35 U.S.C. § 103

As noted, the Examiner rejected claims 1-33 the under 35 U.S.C. § 103(a) as being obvious over a combination Kumano and Pyotsia. In order to establish a prima facie case of obviousness of a claimed invention by applying a combination of references, the prior art must teach or suggest all of the claim limitations. M.P.E.P. § 2143. Applicants respectfully submit that the rejection of claims 1-33 as being obvious over the combination of Kumano and Pyotsia is improper, because the combination of Kumano and Pyotsia neither teaches or suggests all of the limitations of any of these claims, nor supports the modification that the Examiner contemplates as a remedy for the deficiency of the unmodified combination in capturing all of

the claim limitations.

With regard to claim 1, the Examiner points out that Kumano fails to teach the limitation wherein the different time intervals are determined in accordance with the type of device.¹ The Examiner then refers to Pyotsia as disclosing a field device management system, and in particular as teaching optimal maintenance and optimal performance intervals based on the type of device. The Examiner suggests that it would have been obvious to one skilled in the art to modify Kumano in view of Pyotsia to use different intervals based on the type of device, the motivation being that the combination of Kumano and Pyotsia would result in “optimal monitoring visits, which is more efficient.”

The Examiner cites column 3, lines 29-36 in Pyotsia as teaching the use of optimal maintenance and performance intervals based on the type of device. However, Pyotsia does *not* teach such intervals *based on the type of device*. Rather, Pyotsia teaches adjusting intervals based on statistical analysis of data collected from field devices. This is clearly disclosed in column 3, lines 22-28 of Pyotsia, immediately preceding the text cited by the Examiner. Adjusting intervals based on statistical analysis of data collected from devices in the field is *very different* from adjusting intervals based on type of device. One skilled in the art might reasonably consider Pyotsia as teaching a collection of *identical* devices in the field having different intervals based on different outcomes of statistical analysis of data they report. Nowhere in Pyotsia is there disclosed the use of different time intervals based on the type of

¹ In the § 103(a) rejection of claim 1, the Examiner recited wording in the version of claim 1 as filed by Applicants on October 19, 2005, namely “...determined in *response to* the type of device.” As noted in the Amendments to the Claims and in the corresponding explanatory remarks, claim 1 has herewith been amended to recite “...determined in *accordance with* the type of device.” In Applicants’ remarks responsive to the Examiner’s § 103(a) rejections submitted herewith, Applicants recite the amended version of claim 1. The meaning of the original wording and the amended wording is the same with respect to the Examiner’s explanation for the § 103(a) rejection, so the use of the amended wording in Applicants’ response does not bear one way or the other on their argument. This footnote comment applies as well to the Examiner’s other § 103(a) rejections, to the extent that they refer to this same phrase in the claims.

device.

Further, Pyotsia does not even disclose adjusting time intervals associated with *monitoring* field devices, but rather adjusting intervals associated with *maintenance and performance* of field devices. As is clear from column 3, lines 32-36 in Pyotsia, maintenance refers to repair and/or upkeep of a field device, possibly accompanied by a resultant interruption to operation of the device. Maintenance is *not* monitoring. Thus, Pyotsia teaches neither different time intervals based on device type, nor adjusting time intervals for monitoring. Applicants therefore submit that there would have been no suggestion for one skilled in the art to even consider combining the teachings of Pyotsia and Kumano.

Applicants further submit that even *if* the two references are combined, Pyotsia does not make up for the deficiency of Kumano with respect to the required element in claim 1, wherein different time intervals are determined in accordance with the type of device. Hence, the combination of Kumano and Pyotsia fails to teach all of the limitations of claim 1. Moreover, there is no suggestion in Pyotsia for modifying the teachings therein so as to use different time intervals for monitoring according to the device type. Nor does the combination of Kumano and Pyotsia give rise to the suggestion for making the requisite modification. Applicants respectfully submit that the prime facie case of obviousness of claim 1 in view of Kumano and Pyotsia fails, both for the absence of the suggestion to combine the two references, as well as for the failure of an assumed combination to teach all the limitations of the claim. For at least these reasons, Applicants submit that claim 1 is allowable.

With regard to claims 3, 5, and 14, Applicants point out that all of these claims depend from claim 1, and thereby incorporate all of the elements of claim 1. Therefore, Applicants respectfully submit that for at least the reason that each of claims 3, 5, and 14 depend from an

allowable claim, these claims are allowable as well.

With regard to claim 6, Applicants have already discussed above how this claim distinguishes over Kumano (see Response to Rejections under 35 U.S.C. § 102(e) Rejections). Applicants submit that the combination of Kumano and Pyotsia fails to make up for the deficiency of Kumano alone, for reasons similar to those explained in the immediately preceding discussion of the Examiner's § 103(a) rejection of claim 1. Applicants respectfully submit, therefore, that the combination of Kumano and Pyotsia fails to teach or suggest all of the limitations claim 6, and that claim 6 is allowable.

With regard to claims 7-13 and 29, Applicants point out that all of these claims depend from claim 6, and thereby incorporate all of the elements of claim 6. Therefore, Applicants respectfully submit that for at least the reason that each of claims 7-13 and 29 depend from an allowable claim, these claims are allowable as well.

Claims 15 and 30-33 each include the limitations of changing time intervals for monitoring in accordance with the number of devices, and changing time intervals in accordance with the type of device. Applicants submit that the discussion above in connection with the Examiner's § 103(a) rejection of claim 1 applies to claims 15 and 30-33 as well, and that claims 15 and 30-33 are patently distinguishable over the combination of Kumano and Pyotsia for at least the same reasons as those presented for claim 1. Applicants respectfully submit, therefore, that claims 15 and 30-33 are allowable as well.

With regard to claim 16, again the discussion in connection with the Examiner's § 103(a) rejection of claim 1 applies as well, and Applicants submit that claim 16 is patently distinguishable over the combination of Kumano and Pyotsia for at least the same reasons as those presented for claim 1. Applicants respectfully submit, therefore, that claim 16 is allowable.

With regard to claims 18-20, Applicants point out that all of these claims depend from claim 16, and thereby incorporate all of the elements of claim 16. Therefore, Applicants respectfully submit that for at least the reason that each of claims 18-20 depend from an allowable claim, these claims are allowable as well.

Claim 21 includes limitations that are substantially similar to claim 6, and Applicants submit that the discussion in connection with the Examiner's § 103(a) rejection of claim 6 applies as well. Applicants respectfully submit, that for at least the same reasons as given in connection with claim 6, claim 21 is allowable as well.

With regard to claims 22-28, Applicants point out that all of these claims depend from claim 21, and thereby incorporate all of the elements of claim 21. Therefore, Applicants respectfully submit that for at least the reason that each of claims 22-28 depend from an allowable claim, these claims are allowable as well.

6. Conclusion


The Applicants submit that the application is in good and proper form for allowance and therefore respectfully request favorable reconsideration. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney, at 312-913-3305.

Respectfully submitted,

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